A.) AMENDMENTS TO THE CLAIMS:

1. (currently amended) A method of operating a router in ~~an~~ a high-speed access network infrastructure connected to a plurality of service networks, comprising ~~the steps of~~:

receiving an incoming packet with a source address at the router in the high-speed access network infrastructure;

decapsulating the packet if the packet is encapsulated;

comparing the source address of the incoming packet to network addresses allocated to subscribers of services provided by service networks interfaced to the router and service networks not interfaced with the router;

~~if~~ when the source address matches a network address allocated to subscribers of services provided by a first service network interfaced to the router, forwarding the packet to a router in the first service network based only on the source address; and

~~if~~ when the source address matches a network address allocated to subscribers of services provided by a second service network not interfaced to the router, ~~optionally encapsulate~~ encapsulating the packet and ~~tunnel~~ tunneling the packet to a router ~~interfaced with~~ of the second service network ~~if there is no direct connection to the router~~.

2. (previously presented) The invention of claim 1 wherein the service networks utilize the Internet Protocol and wherein the addresses are Internet Protocol addresses.

3. (previously presented) The invention of claim 2 wherein the plurality of service networks are operated by different Internet Service Providers.

4. (previously presented) The invention of claim 2 wherein the plurality of service networks offer access to different Internet Protocol-based services.